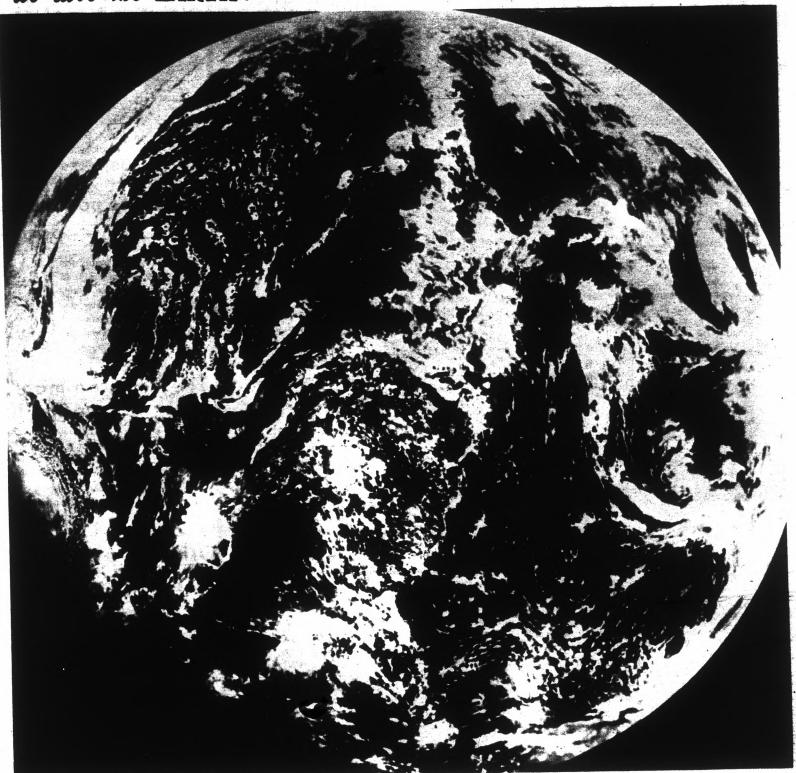
Can we save the EARTH?



The writing on the billboard reads "Ecology-the last fad," and this fad will be celebrated and discussed Wednesday, April 22-Earth Day. Phoenix, in an attempt to clarify some of the issues, has produced a special newspaper on our environment -on and off the campus.

We wrote about the problems, some of victories and about what each of us could do-if we care as much as we say we do.

ART HOPPE



TRUE CAUSE IRWIN AND THE ONE

Once upon a time a young man named Irwin gave up protests. He gave up protesting Vietnam, the draft, sexually segregated rest rooms and pigs on

"Ecology is the one true cause!" said Irwin nobly, just like most young people of the time. "I shall devote myself to making a more beautiful world."
"Oh, my beamish boy," cried his happy mother, like mothers everywhere.

"I knew you'd give up those silly demonstrations and settle down to doing

"Everybody's for ecology, son," said his proud father, like fathers everywhere. "At least we've found a common cause that will close the generation

gap."
And it did. Irwin joined the Students for Delightful Surroundings. He spent his days spearing litter with a pointy stick. And his evenings circulating

The older generation finally approved of the younger generation. Everybody was happy.

But after a year or so, Irwin and his young friends discovered that spearing litter seemed somewhat joyless. And circulating petitions seemed somewhat pointless. Nothing much got done.

Oh, Congress passed a few bills. The corporations talked about "corporate responsibility." The President said the local communities must do more. The local communities said Washington must do more.

So the air got smoggier, the waters fouler, the litter deeper and the supermarkets more crowded.

"These things take time, son," said Irwin's father nervously. "At least you're doing good, dear," said Irwin's mother uneasily.

At 5:14 p.m. the following Tuesday, the SDS staged a lie-in on the Pasa-dena Freeway. The resultant traffic

jam, extended from Anaheim to Azusa, eventually had to be paved over.

The Nation was outraged. Editorial writers thundered: "No little band of radicals, no matter how just their cause, has the right to . .

The next day, the SDS blew up 16 dams to create wild rivers, toppled 42 oil derricks to promote clean beaches and booed every passing baby carriage in Central Park.

The following week, they dynamited every sewer in Decatur, N.J., sabotaged the No Deposit Bottle Factory in Billings, S.C., and tried to burn down the heart of Los Angeles – but they couldn't find it.

Young Irwin, home on the lam, was confronted by his tearful mother. "Why don't you quit that radical SDS, dear, she pleaded, "and join the nice, respectable Sierra Club instead?"

"Those Uncle Smokeys!" snorted Irwin. "They just want to conserve the wilderness we've got. But we're going to make the whole country into one

big wilderness!"
"But, son," pleaded his father, "think of the innocent people you're hurting in this cause of yours.

The great thing about ecology as said Irwin happily, "is that everybody's guilty.

And with that he proceded to set fire to the family car, tip over the family barbecue and smash up all two-anda-half toilets in the family's two-and-ahalf-bath house.

When he'd gone, his parents ruefully surveyed the wreckage. "I think I liked it better," said his mother with a sigh,
"when he was only mad at the President, the university, the police and the Army.

Moral: The generation gap won't be closed until these exuberant young fools grow old. Or we old fools grow exhuberant.

Chronicle Publishing Co. 1970 Printed with permission.

The 'Ecology fad' -- page 3

Tons of paper have been used in writing about the "latest" ecological crisis. Phoenix Assistant Copy Editor Anne Stefan tries to put the "Ecology Fad" into a better perspective.

SF State population -- page 7

Attending SF State presents a special problem in an 'environmental" sense. Kathy Higgins, Phoenix reporter, discusses the overpopulation of the campus with several faculty members in her story.

The common man - - page 10

What does the "common" man think about saving our environment. Staff writer David Kutzmann went off campus to find a different view point.

Other features

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PHOENIX 1600 Holloway Avenue San Francisco, California 94132 (415) 469-2083

Phoenix is a weekly laboratory newspaper lished during the regular school year by the large. The official opinions of the Phoenix torial board are expressed in unsigned editorials o editorial content does not necessarily reflect policies or opinions of the Department e urnalism or the college administration.

Reconstruction

**Reconstructio

ing Services, 360 Lexington Avenue, New York, N.Y., 10017.

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Photo Editor Anne Stefan **Business Mar** Sandy Lee Leisure/Arts Ec Editorial Page Edi

The Pollution

THE LIST

OF ENVIRONMENTAL

DISASTERS GROWS DAILY

America was finally learning about pollution when, in February 1969 a leaking offshore oil well fouled the once beautiful beaches of Santa Barbara. Straw was used to clean some of the oil from the beaches.

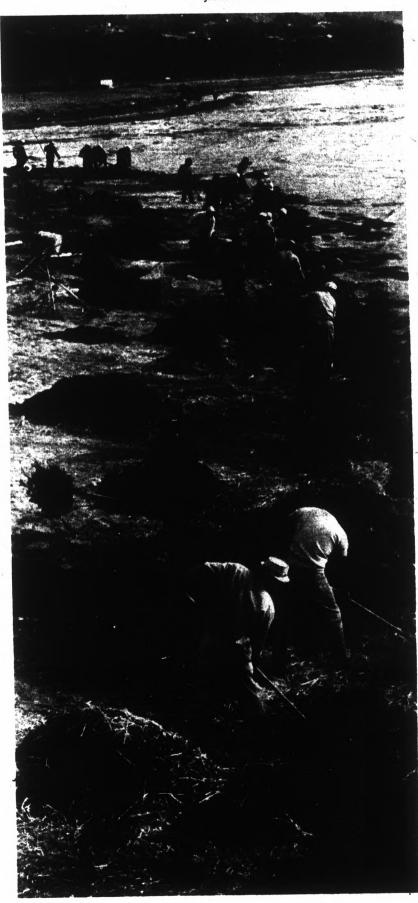
By Anne Stefan

Putting direct pressure on those responsible for pollution is becoming a major out-ofclassroom activity on many of the nation's campuses — even on those where student protests have found little support in the past.

At George Washington University in Washington, D.C., students have formed the Greater Alliance to Stop Pollution (GASP). At the University of Georgia, the ecology activist group is known as BALANCE, which stresses "balance between man and his environment."

Students at the University of Michigan have formed Environmental Action for Survival.

One Stanford student, Phil Taubman from New York City, interrupted his studies for a year to become an assistant at the Washington, D.C., office of Environmental Teach-In, Inc., which is coordinating student activities for the April 22 environmental teach-in.



Continued on next page

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pollution --

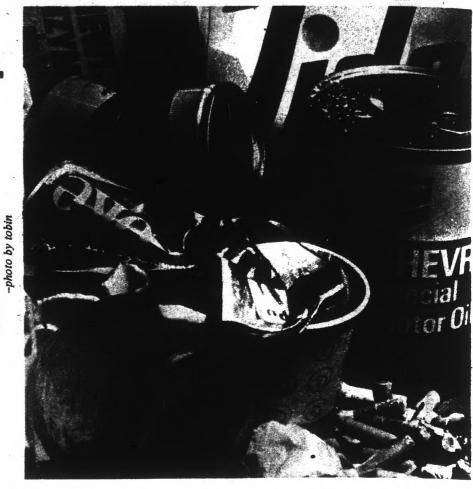
Continued from previous page

Taubman indicated the student concern over environmental pollution.

He said that he has received inquiries from students of at least 500 colleges and universities and from almost 1000 high schools about the teach-in, dubbed "Earth Day."

Sen. Gaylord Nelson (D-Wisconsin), who helped inspire the teach-in, claims it has an overwhelming amount of support "not only from students but from persons and organizations of all ages and all political persuasions."

More and more people are becoming involved in the pollution issue in an attempt to see what can be done to end this ever growing problem.



America is getting angry

and forms. Oil, paper cups tin cans, soap, and glass

But why such concern - from so many.

people?

They are concerned because it has become evident that the pollution problem involves everyone. Those who haven't already had to face the consequences will probably get their chance very soon.

Said Denis Hays, 25, a Stanford graduate who is coordinator of the national teach-in:

"The people of America are coughing and our eyes are running and our roofs are corroding and our lines are blackening and our reproductive organs are accumulating dangerous levels of heavy metals. And we're getting angry."

Stories of Destruction

The list of environmental disasters is quite lengthy and is growing rapidly. Every day brings a story about the destruction of the environment. The locations and circumstances are varied in each case. However, the cause is the same: pollution.

Swimming and other water activities have been banned in Monterey Bay since last summer because of pollution. Signs have been posted warning people of the bay's contamination, caused by dumping poorly treated sewage into the water.

The State of California filed suit in Superior Court asking an injunction to halt what it charged was "pollution of Monterey Bay by wastes from Fort Ord." Ford Ord is an army base located on Monterey Bay.

Charles O'Brien, chief deputy district attorney, said in Los Angeles that "Fort Ord has been polluting the waters of Monterey Bay since 1960."

High school students at Incline Village on Lake Tahoe are upset because no Nevada agency is taking a similar interest in protecting the waters of Lake Tahoe. Students recently cleaned Incline Village beaches of the remnants of a diesel oil spill from a Nevada Asphalt and Painting Co. storage tank.

The students, concerned over the degradation of Lake Tahoe, intend to undertake ecological studies of the lake and make them available to the public.

In Anchorage, thousands of dead birds lined the shoreline recently after a massive oil slick blackened large sections of beaches.

"The number of birds killed ranged upwards of 10,000," said Gene Dickinson, director of the federal Water Pollution Control Administration office in Anchorage.

"Because of the remoteness of the area, nothing could be done to try and save the birds," he said.

The slick, which Dickinson described as breaking up into "black gooey clumps," covered waters on the eastern side of the Kodiak Island area from the northern tip of Afognak Island to the southern tip of the Trinity Islands.

In Jacksonville, Fla., oil from the barge Eastpet flowed down the St. Johns River coating the wings of sea birds and threatening one of Florida's wildlife preserves. This was the third incident of this nature to occur in Florida this year. All three happened within a two-week period.

a two-week period.

On February 13, the Greek freighter
Delian Apollon dumped 20,000 gallons of fuel
oil into Tampa Bay after running aground.
The oil blackened beaches killed thousands
of birds and damaged marine life.

A week later, the freighter Marc Buccaner, inbound from the Bahamas, slammed into a barge, the Eastpet, ripping a three-foot gash below the barge's water line. Oil gushed from the barge for about an hour.

What is being done about pollution in the country.

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The issue of pollution has become a political circus with hearings, speeches, press statements, and proposed legislation on everything from pesticides to family planning.

It seems as though everyone is getting into the act. While many are involved in making a big noise, little positive action has been taken.

In Washington, Secretary of Interior Walter J. Hickel said he planned to put a stop to the dumping of oil-polluted ballast from tankers at sea.

"If this means voluntary agreements, fine," he said. "If it means stronger regulations or retaliation through the courts, so be it"

Environmental Rights

Also in Washington Sen. Gaylord Nelson has called for a constitutional amendment which would guarantee that "every person has an inalienable right to a decent environment.

ment.
"Man may pollute himself into disaster by the end of the century," he said.

Legislation introduced recently to protect Maryland shorelines against uncontrolled development and subsequent erosion and pollution has been attacked by State Sen. Frederick C. Malkus.

He opposed the bill which is intended to prevent erosion and the buildup of industrial complexes and subsequent pollution along Maryland waterways.

"The shoreline bill would give the state the power to gobble up the wetlands and the highlands and preserve to itself the right to have the final word on what can or cannot be done on both — all in the name of pollution control," Malkus said.

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In Sacramento the state Water Resources Control Board has awarded a \$280,000 contract for another pollution study of San Francisco Bay.

The contract was awarded to the state departments of Fish and Game and Water Resources. Those agencies will have special consultants do the work.

The study will attempt to pinpoint San Francisco Bay's capacity to dilute pollution and flush it out the Golden Gate to the Pacific.

Other environmental measures are under consideration in California.

The chairman of the Assembly's resources and conservation committee has proposed a \$15 million conservation education program to be funded by a severance tax on oil, timber, and gas.

Assemblyman George Milias (R-Gilroy) said the program would fill an "education vacuum" and "fight apathy which perils California's livability."

Also Assemblyman Speaker Robert T. Monagan (R-Tracy) told 60 top state and federal officials recently that California will have to "directly face the problems of population control and land use management."

control and land use management."

He called for "more federal demonstration projects on environmental control problems" and suggested using state problems and programs as "laboratories to receive federal aid to work on nationwide problems."

Public Suits Asked

Legislation has been introduced in both the Senate and Assembly which would allow the attorney general, local government and private citizens to bring suit when they think any public or private program or product is having a detrimental effect upon the quality of the environment.

The California Air Resources Board's technical advisers have urged the board to all but eliminate lead antiknock compounds from gasoline beginning next year.

Their recommendation was based on two days of testimony by top executives of the nation's oil and automobile industries.

Lead compounds — added to gasoline to raise the octane level, increase performance and reduce noise — have been singled out as a major contributor to photo-chemical smog.

The technical advisory committee recommended that starting next year California refiners be required to produce regular grade gasoline with only four per cent of the present lead content and that all lead be eliminated by 1974.

Gov. Ronald Reagan proposed that the Legislature allow sale of personalized vehicle license plates to finance the war on smog.

Reagan said a bill would be submitted to the lawmakers to charge a \$25 fee for the special plates. All the money, above cost, would go to a "special environment protection fund," he said.

"The plates would serve as a symbol of concern about the pollution problems and identify the motorist as one who is doing something to correct the problem," Reagan said

He said that if two per cent of the state's car owners applied for the plates, the fund would reach nearly \$38 million a year.

Inlaid Drilling

A bill introduced to prohibit oil and gas drilling in Contra Costa County's submerged lands hit a snag before a Senate committee when an oil industry lobbyist opposed it.

Sen. John A. Nejedly (R-Walnut Creek) said his proposal would protect San Francisco Bay and the Sacramento-San Joaquin Delta from possible oil spills.

However, oil lobbyist Albert J. Shults said the eight oil companies he represents oppose the bill. He told the Senate Government Organization Committee that more than 925 offshore wells have been drilled under state supervision without a spillage

In Richmond, a "shut 'em down" order was threatened against industrial plants which fail to comply with regulations of the Bay Area Pollution Control District.

Early in March the board adopted a motion that called for a full investigation of complaints. The charges had been raised by 13 speakers during a two hour public hearing.

At the conclusion of the hearing Board Director William Blake warned, "the people will either come into compliance or we'll shut 'em down"

Investigations of violations will be made by D.J. Callaghan, the district's chief administrative officer.

* * *

Many people predict great promise in the National Environmental Policy Act of 1969. Drafted and shepherded through Congress by Sen. Jackson, the Act was signed by Nixon Jan. 1.

The act sets two precedents:

- It establishes national policy, directing every executive department to include environmental considerations in all new programs and to make sure old ones conform with clean environmental goals.

- It creates a Council on Environmental Quality at the top level. The council will do an inventory of the nation's natural resources and prepare an annual report on the "state of the environment" for Congress.

Reports from the council will have a major impact on what happens to the environment during the 1970s. Experts are making predictions of what to expect in the next decade.

Among the predictions are these:

- Air pollution, after worsening through the mid 1970s, will diminish to the point that the air in 1980 will be cleaner than it is now.

- A combination of tough standards and a lot of money could improve water quality standards. "Point source" pollution which occurs when industry or municipalities pour big amounts of waste in the water could be controlled. However, the water will remain dirty due to general runoff and erosion, especially in rural areas.

- The problem of where to put solid waste will be abated or it will get entirely out of hand. Technology is the only hope. Use of the pollution-free incinerator and recycling

of products may be the answer.

No Easy Answer

There is no easy answer to the environmental battle. Use of urban-suburban land, preservation of places of most natural beauty, where to locate airports, power plants and industries will continue to be public issues.

Then there are the problems of channeling urban growth in new directions, limiting consumption habits, and curbing population growth.

To Congress, the President, and others faced with the issue, the task at hand centers on "quality of life."

The first step is to clean up — to make the air, the water, and the land healthier and

more enjoyable.

So far, however, all that has been accomplished is a lot of talk. Planning, proposals, and publicity have been the only steps taken in the war on pollution.



San Franciscians can still see their skyline-but for how long, and what kind of skyline will it be

April 22. Earth Day.

By Helen Sierra

April 22 — Earth Day — will mark a national effort to stop ecology from becoming the last fad.

On that day, students, politicians, industrialists, and citizens will participate in an Environmental Teach-In.

The main event at SF State will be a panel discussion.

State's Teach-In Committee coordinator, 23-year-old anthropology major Peter Maule, said the discussion will be shown over State's closed circuit television system and videotaped for possible use in a future CBS network special.

"The object of the discussion," Maule said, "will be to find specific means and ends to correct our ecological crisis."

Two hour panel

The panel discussion, to be held in the main auditorium from noon until 2 o'clock, will consist of a panel of industrialists, politicians, conservationists, citizens, and students.

Maule said that John Curtin, a lecturer in social science interdisciplinary studies, will be the discussion moderator.

Some panel participants will be San Francisco Supervisor Robert Mendelsohn and state Assemblyman John Dunlap.

Representatives from the Bay Conservation and Development Committee, Federal Water Pollution Control District, U.S. Forestry Department, Army Corps of Engineers and the Conservation Committee of the Institute of American Architects will also take part in the discussion.

Ecological discussions

SF State's Teach-In Committee has requested professors to conduct ecological discussions during their April 22 classes.

State's teach-in will be extended beyond Earth Day because, Maule said, "we hope to have a continual teach-in."

Maule said the ecology group at SF State wants more than just one day to find specific ways of resolving the ecological crisis.

Details for the two weeks of activities aren't complete but Maule said that announcements will be posted throughout the campus with correct time and place details as soon as they are known.

Scheduled to appear are Stephanie Mills of Planned Parenthood, April 21; the San Francisco Mime Troupe, April 28; Saul Alinsky, political organizer April 30; and Ralph Nader, consumer rights advocate May 4.



Peter Maule, 23 year-old coordinator of SF State's Earth Day activities

ON 1000 CAMPUSES

Teach-ins on the environmental pollution crisis and overpopulation are planned on hundreds of college and high school campuses across the country April 22 — the first Earth Day.

Bringing together students, scientists, politicians, businessmen among many others, Earth Day activities will be focused on educational programs through discussion, lectures and films.

On many campuses cleanup efforts are being planned and students in other areas are organizing bicycling and walking campaigns to highlight air pollution problems produced primarily by automobiles.

At the University of Colorado, a three-day bicycle parade down the Rockies from Boulder is scheduled to culminate Earth Day in Denver with the presentation of an "ecological bill of rights" to Gov. John Love.

Schools closed

All public schools in Wichita, Kan., will participate in week-long environmental programs starting April 20 and classes will be suspended at a Catholic and a public school in Owensboro, Ky., so pupils can pick up trash along highways and attend lectures on pollution.

School officials on many other campuses have sanctioned teach-in events and are cooperating with students in organizing them.

Governors, senators and congressmen among other political figures of both parties are speaking at many events.

In Pennsylvania, Senate Minority Leader Hugh Scott will speak at an April 21 rally at Independence Hall

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where a "Declaration of Independence" will be signed.

Pennsylvania Gov. Raymond Shafer has proclaimed April 22 Environmental Teach-In Day, saying "pollution of our air, water and earth means disease, ugliness and eventually an end to life as we know if we continue to ignore the proglem."

"Everyone — the silent majority included — is against pollution," said Karim Ahmed, co-chairman of the teachin at the University of Minnesota, in explanation for the widespread support for the antipollution movement.

Political purposes

But he also voiced fear that environmental issues would be used for political purposes. "We have a hard time telling them not to use us."

The most noticeable observance in New York City will be the two-hour closing of Fifth Ave. for 46 midtown blocks, a move by Major John Lindsay that has brought protests from merchants and warnings of traffic chaos.

The mayor also ordered 14th St. closed from Second to Seventh Ave. from noon to midnight, giving an Environmental Action Coalition an opportunity for an outdoor exposition half the width of Manhattan Island.

After the idea for Earth Day was put forth by Sen. Nelson joined by Rep. Paul McCloskey (R-Calif.) a student-run organization, Environment Teach-In, Inc., was formed in Washington to coordinate and encourage activities.

For the most part, teach-in activities got under way April 17 and will run through April 25 with the bulk of them coming on Earth Day itself.

-Associated Press



There are 18,000 students here and the campus is only 103 acres-Is that too many for too small a space

By Katherine Higgins

Struggling to find a seat in the Commons at noon is like fighting the five o'clock rush on the Bayshore—not too pleasant an ordeal.

The biggest problem facing the campus today is overcrowding and its many side effects, said William Charleston, chief of plant operations.

"The ever increasing population here may just wear out the ground we walk on," he

"San Francisco State's biggest ecological problem is, of course, too many people."

Both the small campus area and growing enrollment in the 1960s combined to produce crowded campus conditions, Sweeney said.

Limit enrollment

The 103-acre campus was purchased in 1939, with a projected enrollment of 3500 students. Construction began after World War

ditions were evident during the 1978-69 student strike, when thousands gathered on the lawn in front of the Commons.

Some of the more violent moments of the strike could have been caused by the "friction of sheer numbers of people alone," Sweeney said.

said.

He criticized the "money mentality" of the campus plan that "doesn't consider the future needs of a growing campus."

Sweeney referred to a recent decision not to put a parking lot under the proposed Humanities building "because it was too expensive"

"Where are we going to put the parking lots in the future without covering up the open space we have now," he said.

Thomas Ryther, associate professor of sociology, disagrees with Sweeney's gloomy outlook.

Ryther is bearded and over thirty. He has been on the SF State faculty eight years. Ryther was dressed in a brown sweater and cords. He leaned back in his chair with his hands clasped behind his head as he spoke.

"I think this campus could handle twice as many people," he said.

"If there were five colleges within the college campus, like the University of California campus at Santa Cruz, we could accommodate more people," he added.

Ryther's five-college campus proposal would include a union, classrooms and school offices each within its own college.

Ryther admits that the campus is crowded, but he doesn't believe that more people are in one place at any one time.

He maintains that students cope with the crowded classrooms and eating facilities by "not coming to class as often and leaving the campus sooner."

Ryther disagrees with Sweeney's optimum student population number because "controlled studies with human subjects have never been made in a density situation.

"What we really need here is more meeting places like a union, to disperse the students," he said.

There are too many people here

said. "We're bucking the tide and losing gradually"

Charleston said there are just too many students and not enough ground area for them to move comfortably on.

No elbow room

The lack of "elbow room" on the SF State campus is also evident in crowded classrooms and long registration lines. Finding free parking space less than five blocks from campus is next to impossible.

These problems led to the inevitable conclusion voiced by James Sweeney, chairman of the Ecology and Systematic Biology Department:

II with student population set at 5600. By 1958, four years after the present campus was occupied that number had doubled and today the maximum student enrollment has been set at just above 18,000.

Sweeney, in his mid-fifties, came here in 1954 after receiving his PhD at the University of California, Berkeley. Conservatively dressed in a short sleeved white shirt, no tie, and dark slacks, he spoke in a friendly voice.

"I'd really like to see a campus population of 10,000," Sweeney said. "The quality of life around here naturally declines when you've got more people."

Sweeney said the crowded campus con-

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Eight tons of tran

By David Kutzmann

If a visitor were to take a noon stroll along the Commons on a bright, sunny day, he would be treated to many eye-opening experiences; or rather, eye-sore experiences.

Starting at the BSS building and walking west towards the Commons, the visitor would notice all the dogs — man's best friend — diging up flowers, plants and grass and fighting among themselves.

"We used to have small animals like squirrels, quail, and ducks around here," said William Charleston, chief of plant operations.

"But the dogs scared them all away."

Charleston also said his workers don't consider it part of their job to clean up after the dogs.

Mounds of trash

As our visitor proceeds onward and passes the central lawn area, he'd see students sunning themselves and lounging on the benches and ground. They would be surrounded by mounds of trash and debris.

"It takes 20 man hours per day to pick up the trash that students and staff discard," said Charleston. "That's two and a half man days a day."

Plant operations employs 11 men full time to clean up. It costs \$18,000 a year in workers' salaries to pick up trash and another \$40,000 to haul it away.

Eight tons of trash is collected every day from the campus.

Campus once orderly

"Our campus used to be orderly," lamented Charleston. "We had nice flowers and well manicured lawns. We were the talk of the community."

Charleston said things worsened in 1965 when a rule prohibiting walking on the grass was rescinded.

Afterwards, students and teachers began to use the lawn as a short-cut to class or wherever they were headed.

"Things deteriorated rapidly then," said Charleston.

Messy world

He emphasized however that students here are no messier than elsewhere.

"It's a messy world. We do have a litter problem. The Commons is just terrible," said Charleston.

Litter around campus increased drastically when vending machines were installed and the Commons switched from chinaware to plastic and paper cups and plates.

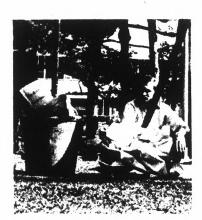
"Paper made food more mobile," said Charleston. "Someone's always carrying a plate or cup from place to place, and when they're done, it goes on the ground."

Another problem gardeners face is students who like to pick flowers and break shrubs.

Charleston, who has been at SF State for 20 years, said he couldn't understand how

"The students are pigs. I've seen them sit in the middle of crap piled a foot high and still not bother to throw their stuff away."







tos by Kevin Tobi

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an a day ick it up

stats could be so concerned about environm I pollution nationally and still not show ar spect or concern for the appearance of

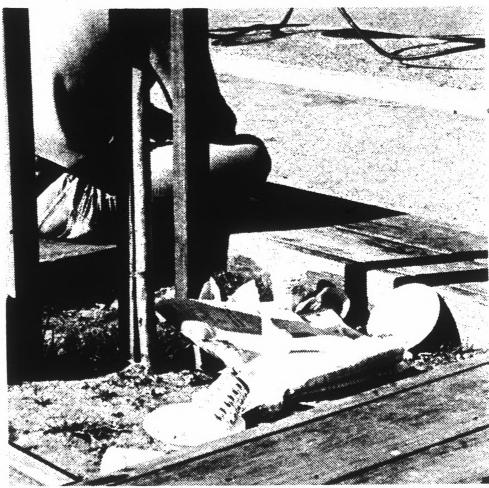
the most sloppy eating areas imagin-

The students are pigs," said one Commworker. "I've seen them sit in the middle of p piled a foot high and still not bother to by their stuff away."

nly two men are employed by the Common to clean up on a daily basis, said George Liay, director of the SF State Foundation who operates the Commons.

three in the afternoon when the majo of students have left the campus, trash ca are emptied and most of the debris

This place isn't anything to write home ab sometimes," said Charleston smiling.



Even the trees on campus are covered with trash and waste.

To survive -- change

By Boku Kodama

Poll SF State students about ecology and you will find one general theme: if the country is going to survive, it will have to change.

In a survey conducted by *Phoenix* this month, 69 per cent of the 175 students polled said that today's ecological problems could not be solved in the present system.

The students were selected at random and asked to answer nine questions.

When questioned as to what could be done to "save the earth," 32 per cent of the students felt that the masses of people needed more education about the problems of ecology.

In one question students were askedto define ecology. Of the 175 responses, five did not know the meaning of ecology while the rest were able to give accurate answers.

The American Heritage Dictionary of the English Language gives the definition of ecology as "the science of the relationships between organisms and their environments."

Not main issue

A large majority of the students, however, felt that ecology is not the main issue in our society.

More than half of the responses said ecology is as important as any problem in our society but was not the main issue. Thirty-two per cent said other issues were definitely more important, racial equality being the primary problem, followed by the war in Vietnam, making a living after college and the overthrow of a capitalistic government.

Other questions on the survey includ-

If this country is going to survive, it will have to change.

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The large majority of students (64 per cent) were in the 20-23 age bracket. There were no 18-year-olds; 11 per cent were 19; 20 per cent were from 24 to 30; and 5 per cent were over 30.

Seven per cent of the interviewees were freshmen; 11 per cent, sophomores; 40 per cent, juniors; 28 per cent, seniors; and 14 per cent, graduate students.

The students polled represented 28 different majors.

(Survey conducted by Boku Kodama, Irene Semer and Cynthia Williams.)

"My conscience kind of bothers men when I pump all that gas into cars."

"We'll all choke to death before General Motors does anything."

'All that dirt in the air is hurting...

By David Kutzmann

"When you go around cutting trees down, killing wildlife, polluting the air and overpopulating the earth, there's going to be trouble," said Ron R., a 22-year-old gas station attendant.

'My conscience kind of bothers me when I pump all that gas into cars,'

Ron is part of the non-active, nonvocal segment of our society dubbed the "silent majority."

But Ron's opinions on ecology aren't

On the contrary, the Rons of the world seem to be developing a growing awareness that pollution is a problem of local and national concern which needs immediate correction.

Ron says if a complete and permanent solution is to be found, the balance of nature must be adhered to and kept in mind by all people.

Comprehensive expression

Gurney Nunnelley, a security guard for a drayage company, believes the term ecology should be a comprehensive expression taking in all elements of the environment.

"I can put it in one sentence," said Nunnelley. "It means recognizing one's place in the environment and being on good terms with it."

"By living in a rural area, a person understands and experiences what harmony in nature means," said the North Carolina born Nunnelley.

The first time he became aware of pollution was when, as an eight year old child, he visited his aunt in New York

"I was only a kid when I realized there was something wrong," Nunnelley said.

He believes man must become crea-

As the beer cans cover the beach (above) signs are posted warning of the pollution of the water.

No swiming is becoming a common thing about California coastline



"The government shouldn't spend all its money on just air pollution." "There are all sorts of pollution — the ocean, overpopulation and noise pollution."



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tive rather than exploitative in main-

taining an equilibrium in nature.

"The government shouldn't spend all its money on just air pollution," Nun-nelley said. "There are all sorts of pollution - the ocean, overpopulation and noise pollution.'

A variation on the same theme was offered by Stephen Strain, a 30-year-old management trainee with Pacific Tele-

"Ecology is environment working in harmony with itself," said Strain, who has a UCLA M.A.

He emphasizes, like Nunnelley, that all ecological problems tie in together and can't be separated or overlooked.

'But air pollution affects me most,' said Strain.

"I wish there were cars that didn't add to pollution," he said. "If there were steam cars, or any alternative means of transportation, I'd use them.

He thinks large corporations like General Motors and Ford should be made by law to produce a non-polluting auto-

Driving a necessity

'I'll continue to drive my car until then because it's a necessity for a man with a large family.

While most of the polled remained optimistic about solutions to ecological problems, one young department store clerk said he sees nothing but ecological chaos ahead.

"We'll all choke to death before General Motors does anything," said Peter M. bitterly.

'Just look at the government. They're all sitting around. Nixon won't do anything, his advisors won't do anything, and big business would never sacrifice its profits to market a new and experimental car," he said.

As a gardener in Stonestown said, "All that dirt in the air is hurting my plants. And it's getting worse.'

Ecology groups are quickly blossoming throughout the Bay Area due to the recent rain of concern over environmental destruction. Over 150 groups are listed in "Grass Roots," a directory published by the Ecology Center in Berkeley.

The Ecology Center, 2179 Allstone Way, Berkeley (548-2220), is an information center. Its major task is to channel people to active ecology groups for information or help.

'Grass Roots' can be purchased for one dollar at the center which also operates a printing press, library and

Here are a few other local and na-

tional groups to contact:

Ecology Action, 1317 Masonic, San Francisco, 861-5533: If you called the Ecology Center and asked what you could do to ease the mounting garbage situation, you might be referred to Ecology Action which has planned a

"recycling project" for April 30.

Trash bins will be placed in the Kezar Stadium parking lot on that day for the collection of tin and aluminum cans, foil and pieplates, cardboard, rags and glass. Residents can bring these items to Kezar and Ecology Action will have the material recycled (reused) in-

stead of dumped into the bay.

Friends of the Earth, 451 Pacific, San Francisco, 391-4270: David Brower, former executive director of the Sierra Club organized Friends of the Earth last July.

Friends of the Earth has published three books, including "The Environmental Handbook," printed in prepara-tion for the April 22 Environmental Teach-In.

The Nature Conservancy, 215 Market, San Francisco, 989-3056: The Conservancy is a private, non-profit organization which acquires land still in its natural state for scientific, educational and recreational purposes.

In the last year, the Conservancy has acquired 500 acres of Bay tidelands in Marin County through gifts and purchases. Nationwide, the Conservancy

WANTED: Hard workers to help keep the "ecology movement" from becoming a fad

has acquired 450,000 acres of land in 41 states.

Zero Population Growth, San Francisco Chapter, 1605 Castro St., San Francisco, Calif. 94112: The San Francisco Zero Population Growth chapter has scheduled a demonstration on the Golden Gate Bridge at 4:30 p.m., April

Demonstrators will march from the San Francisco side of the bridge to show commuters that the rush hour crush is an outcome of overpopulation.

Information tables will also be manned in the Financial District on the same day.

The San Francisco chapter conducts monthly meetings in Gresham Hall, Grace Cathedral Church. For information on ZPG activities, meetings and membership, students may call Don Melandry, 665-0586 or Nancy McLane,

Sierra Club, 1050 Mills Tower, San Francisco, 981-8634: The national headquarters of the Sierra Club is in San Francisco. With 85,000 members in 30 chapters, the club has fought to preserve many acres of timberland and scenic

Planned Parenthood — World Population, 515 Madison Ave., New York, N.Y. 10022: Planned Parenthood is another group dealing with the population problem. It operates 500 clinics in the nation which provide familyplanning information and services.

Planning and Conservation League, 909 12th St., Sacramento, Calif. 95814: This group serves as a lobby for ecological interests in the California State Legislature.

Californians Organized to Acquire Access to State Tidelands, P.O. Box 3284. Santa Rosa, Calif.: COAAST seeks public control of all California coastline development.

Save Our Valley Action Committee, 231 N. First Street, San Jose, Calif. 95113: SOVAC opposes construction of the San Jose jetport.

San Francisco Tomorrow, 693 Mission, San Francisco, Calif. 94105: This group opposes the "Manhattanization" San Francisco.

Committee of Two Million, 760 Market, San Francisco, Qalif. 94102: This organization supports the Waldie Bill which would make Eel, Trinity and Klamath Rivers part of a wild and scenic river system and would block state water project dams.

Environmental Teach-In, Inc., Room 200, 2000 P Street N.W., Washington, D.C. 20036: This organization serves as the coordinator for the April 22 Teach-In activities throughout the na-

National Audubon Society, 1130 5th Ave., New York, N.Y. 10028: The Audu-

bon Society is among those groups op posed to the use of the pesticide DDT.

The Wilderness Society, 729 15th St. N.W., Washington, D.C. 20005: This 60,000 member group sponsors trips into the wilderness and is currently negotiating with the Department of Interior to block a proposed pipeline in Alaska until its effects on the environment can be determined.

Izaak Walton League of America, 1326 Waukegan Road, Glenview, Ill. 60025: The Walton League's 60,000 members are battling for clean, pollution-free water.

The Environmental Defense Fund, P.O. Drawer 740, Stony Brook, N.Y. 11790: The scientists, lawyers and citizens of the Defense Fund are fighting DDT and the construction of a barge canal on Oklawaha River in Florida.

Peninsula Conservation Center, Box 548, Menlo Park, Calif. 94025: PCC is another information clearing house similar to the Ecology Center.

Other groups to contact:

Open Space Action, 384 Post St., San Francisco, Calif. 94108.

Committee for Green Foothills, P.O. Box 11511, Palo Alto, Calif. 94306.

Coastside Conservation Coalition, P.O. Box 64, Jenner, Calif. 95450.

aue of Conservation Voters, 917 15th St. N.W., Washington, D.C. 20005.

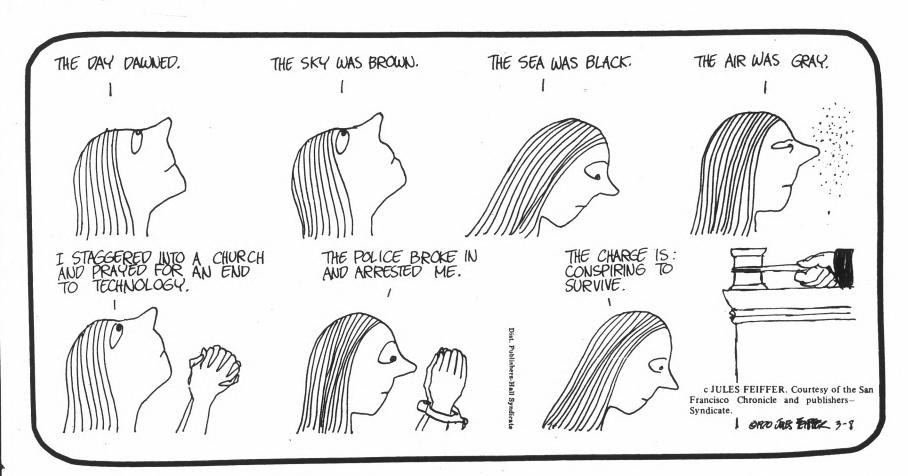
Students for Oregon's Environment, 421 S.W. 11th Ave., Portland, Ore.

Project Survival, Municipal Building, Seattle, Wash. 98104.

Environmental Action, University of Colorado, Denver Center, 1100 14th St., Denver, Colo. 80202.

GOO, Inc. (Get Oil Out), 111 East De La Guerra St., Santa Barbara, Calif.

By Jon Funabiki



The fight for Point Reyes

A rugged coastline borders the quiet inlet of Drake's Bay, part of the Point Reyes National Seashore.



environmental war

By Mike Madigan

Editor's note: If we are going to win the battle for our environment we will need battle plans — examples of campaigns that were successful. The battle for Point Reyes is one example.

The ceaseless, surging sea pounded the tall cliffs and a gusty wind swept across the stretched sand. Seagulls floated on sliding tides of air and disappeared into lagoons and esteros enclosed by shifting dunes and rolling hills. Birds and sealions could be heard but not seen on the misty, offshore rocks.

Yet neither the howl of the wind nor the roar of the sea could smother the gruff grumbling of a yellow bulldozer as it ripped and scarred the grassy lowlands surrounding hidden, natural Drake's Bay.

On Sept. 13, 1962, President Kennedy signed a bill simultaneously creating the Point Reyes National Seashore and appropriating \$14,135,000 for the purchase of 53,000 acres which were to become the third such preserve in the national park system.

Point Reyes is located 35 miles northwest of San Francisco. As of yet, the national park in its entirety does not exist.

Immediately after federal authorization of the intended reservation project was confirmed, speculators swarmed in and land prices skyrocketed.

In 1966, \$5 million was additionally appropriated for the purpose of purchasing park land.

Now, more than seven years since the signing of the original bill, only 22,060 of the intended 53,000 acres have been acquired.

53,000 acres have been acquired.

The remaining 30,940 acres are haphazardly strewn along the 100-square-mile peninsula, entangling and intertwining the jumbled patchwork of 10 scattered parcels of land which so far, are all that exist of the unified preserve.

Interior Under-Secretary Russell Train conceded recently that the existing reservation was too "fragmented and scattered to be regarded as efficiently administrable" and noted that its existence had not yet been formally entered in the Federal Register.

It is impossible to traverse the separated segments without crossing private land.

"People are always trespassing," one rancher said, "letting our cattle loose, wanting to use the bathroom. They don't know what's park and what isn't."

Major private land owners within the park boundaries want desperately to self. The owner of the most critical piece of land — the approximately 2500 acre Lake Ranch — has been begging the government to buy or trade the land. William A Sweet, a pleasant, soft-spoken Coos Bay, Ore., lumberman, owns the Lake Ranch.

"It's a shame," he says. "It should be in government ownership. We've been trying to sell or swap the ranch with the government for 10 years. But we just can't afford to wait any longer. We

paid about \$22,000 in taxes last year and took in about \$2,400 in leases. We just don't have the assets to continue."

pur

And so road builders have started threading their way in and out of the Lake Ranch, paving the way for the surveyors who have already begun laying out 40-acre tracts which will immediately be placed for sale on the eager subdividers market.

Estimates called for an additional \$38,365,000 to purchase the land necessary to complete the national park. Yet, incredibly, while prices continued to rise and trees continued to fall, the government hesitantly mumbled about economy.

Until only a few months ago, the money needed to complete the purchase of Point Reyes National Seashore seemed readily available. For in 1965, Congress passed a historic piece of legislation, establishing the Land and Water Conservation Fund.

That legislation assumed control of money coming from the sale of surplus federal property, from park entrance fees, from taxes on motorboat fuel and from royalties on oil pumped from offshore federal areas. These sources provided \$200 million a year for the purchase of federal and state park property.

But last year the Nixon Administration cut back the fund, allowing only \$124 million for fiscal year 1970. This resulted in appropriations

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'Nixon says one thing and does the opposite'

totalling only \$17 million for land acquisition purposes for the national park system. The figure is less than half of what was needed for Point Reyes alone and, even so, the money was earmarked for eight units in the 44 unit park system. None was earmarked for Point Reyes.

Sen. Gaylord Nelson (D-Wis.) reflected the reactions of many American conservationists to Nixon's budget cutback when he stated:

"Vietnam, hunger, the urban crisis, prevention of nuclear war, are all relatively insignificant issues and, in fact, will be irrelevant unless we do something about the rapid destruction of the environment. It just doesn't make any sense to leave \$76 million setting in a milk can while the price of land continues to escalate."

At a hearing of the House Interior Subcommittee last May 13, the Point Reyes predicament was further complicated when George Hartzog, director of the National Park Service, introduced a "controlled development" plan. Under this proposal, 16,440 acres of the still-privately-owned 31,000 acres would remain in private farm operation and 9200 acres would be sold for residential use under restrictions "compatible" with the park.

Part of the land in each of these areas was then in federal hands and would be obtained by convenient condemnation, netting the government a quick profit of some \$10 million.

Conservationists who had gagged at Hartzog's subdivision proposal were yet to see the worst from Washington.

In a letter to Chairman Wayne Aspinall of the House Interior Committee, Robert Mayo, director of the Bureau of the Budget, concluded: "Funds likely to become available will not be sufficient to permit acquisition of such areas without extensive curtailment in already programmed land acquisition."

Beneath Mayo's pronouncement was his effort to emphasize the fact that the Administration would spend only the \$124 million limited by Nixon's official budget policy.

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In October, the prestigious Sierra Club charged President Nixon with nonpolicy and duplicity in the area of conservation.

"We have to indict the Nixon Administration for what we call its nonpolicy in conservation," stated Edgar Wayburn, vice-president and spokesman for the 82,000 member club.

"Not a single addition to the nation's park or wilderness system has been recommended to Congress by Mr. Nixon since he took office. Yet, the Nixon Administration has given strong verbal assurances that the protection of our present and potential parklands is a matter of high priority. This is an example of the duplicity that is going on right now.

"Mr. Nixon says one thing and does the opposite . . . The thing is, Mr. Nixon doesn't understand what is going on, and we want to make him understand," he said.

Whether Dr. Wayburn was aware of the profound affect this last statement was to have upon the entire Point Reyes crisis, nobody can say.

But immediately following his blast at the President, the first uneasy rumblings of an influential quake began to stir in the Bay Area. The epicenter was San Rafael, headquarters for the new "Save Our Seashore (SOS) Committee."

"Save Our Seashore" is an energetic, nonpartisan organization hell-bent on saving Point Reyes National Seashore from the bulldozers.

Its leader, former Marin Supervisor Peter Behr, is a veteran of numerous environmental sgruggles. He was elected to the Board of Supervisors and was re-elected until he retired in 1969.

In 1964 and 1969 he was named Marin's

outstanding conservationist.

One of his battles was to Save Our Bay by convincing state powers not only to continue, but to strengthen the Bay Conservation and Development Commission which controls fill and development in San Francisco's picturesque Bay.

Led by Behr, a blue-ribbon executive committee of Marin leaders and an advisory board of prominent Bay Area citizens made "people power" swiftly effective.

First, the organization decided just what its objectives were. They selected them in the following sequence:



As the Bear Valley trail winds to the beach at Point Reyes, "Arch Point" sticks out into the ocean

• To get Congress to raise the authorized ceiling for acquisition of 30,940 acres of privately-owned property within the boundaries of the park from the present \$19,135,000 to \$57,000,000.

• To get Congress to appropriate \$38,365,000 necessary to purchase this property, which still remains in private ownership seven years after the Seashore was organized, and

• To obtain the active support of Nixon and his administration to raise the authorized ceiling and include in his forthcoming budget the \$38,365,000 required to complete the Seashore.

To convince Nixon that the seashore needs to be saved immediately, a massive campaign was launched to collect at least a million signatures on petitions to the President asking for his help and support.

Also a concentrated letter-writing project to influential legislators was initialed. The lawmakers were implored to emphasize the fact that the sea-

Continued on next page

Point Reyes -- Safe for awhile

Continued from previous page

shore would not become a reality unless \$38 million-plus was appropriated within the next few months to buy the remaining 30,940 acres owned by private parties.

Four key politicans bore the brunt of the huge ink and pulp campaign: the President, him-self a Californian, Sen. George Murphy (R-Calif.), Rep. Ray Taylor (D-N.C.), and Sen. Alan Bible

Only the President could release the funds necessary to purchase the park lands, even after Congress authorized and appropriated the additional money. Former presidents had changed their budtets and overruled budget directors. It was believed that President Nixon could do likewise - if and when he was convinced that enough citizens cared.

As a fellow Republican from California, and as a Senator seeking re-election the next year, it was believed that Murphy was in the influential position to put the Point Reyes case directly to

Rep. Taylor's subcommittee had held the monumental May 13 hearing at which Marin County witnesses performed excellently in presenting the case for saving the seashore.

Sen. Bible was in the position to hold hearings and act on S.1530, jointly sponsored by Cranston and Murphy, to authorize the necessary funds for Point Reyes. Bible was urged to hold hearings and recommend prompt Senate passage of the Cranston-Murphy bill without waiting on the House or the President to release the needed funds.

Behr described the conservation dilemma when he said, "If the park lands are not purchased now, before they are sold for development, they will be forever lost to us and our succeeding generations, and this government will have breached the good faith in which it promised our citizens it would preserve this great area.'

John Ehrlichman, special assistant to the

President, was the source of the first hint of success. A letter written to Behr in early November contained the welcome news that the seashore "is under active review in this office." On November 13, Rep. Don Clausen asked for an appointment at the White House to deliver to Nixon the SOS petitions bearing 450,000 signatures.

On Nov. 14, 1969, the bill authorizing the

expenditure of another \$38 million to complete the Point Reyes National Seashore was approved by the House Interior Subcommittee on Parks and Recreation. The subcommittee's unanimous decision sent the measure to the full House Interior

and Insular Affairs Committee.

The head of that committee, Rep. Wayne Aspinall (D-Colo.), indicated he would "do everything I can to get the bill out of the house before

the end of the year.'

Five days later, Nixon pledged his support to the development of the 53,000 acre Point Reyes National Seashore Park. Nixon said he would request the additional \$38 million needed to finish the Point Reyes project if Congress authorizes the

Murphy, speaking for the President, declared, "The President based his decision on the fact that the pressure for the Point Reyes area to be developed and the subsequent escalation of land values were more severe at this particular site than at any other place in the nation, so that fiscal responsibility required immediate action.

Success seemed inevitable. But the dramatic fight for the park had already carved a monument to government confusion and so, on Dec. 2, the Marin County Board of Supervisors imposed a freeze on all subdivision development of private lands within the Point Reyes National Seashore boundaries.

The board unanimously voted a 90-day ban on development of approximately 30,000 acres tabbed by conservationists for the park, but still in actual private ownership, after several large landholders



From the beaches of Point Reyes to the Woods of Inverness

showed signs of presenting new development pro-

The newly imposed embargo, although limited to 90 days, was subject to extension, and Marin County Supervisors plainly showed a determination to continue it as long as was necessary to authorize federal acquisition of the National Seashore land.

And so the Point Reyes preserve remained for four months - temporarily safe from boundary reduction, legislative-budgetary stalemates and the familiar bite of inflation

Then on April 3, 1970, Nixon signed the bill boosting the project's ceiling by \$38.4 million.

Congress must still appropriate the actual money in separate measures however; \$7.1 million in a supplemental bill for the current fiscal year, \$16 million in the pending budget for fiscal 1971, and the balance in fiscal 1972.

'Save Our Seashore" leader Behr jubilantly summed the successful campaign as being "one of the best examples of the effectiveness of people power and political power working together for the common good."

what talking about

"There are fashions in words," a veteran conservationist noted recently, and "ecology ... is being bandied about until people are growing sick of it before they know what it means."

Here's a set of definitions of environmental terms that will crop up frequently as the environment becomes more of a popular issue.

ENVIRONMENT—The sum of all living and non-living factors affecting organisms, including man.

ECOLOGY - The study ofthe relationship of living things to their living and non-living environment.

ECOSYSTEM - A complexof plant, animals and their physical environment, interrelated in such a way that changes in one affect the other.

POLLUTION—The addition to an ecosystem of substances in a quantity sufficient to produce undesirable changes.

BIOSPHERE—The thin skin of water, air and soil which surrounds the Earth and contains

ATMOSPHERE - That portion of the biosphere made up of

Lately, mutant word-strains, with "eco" as prefix, are emerging. Seen in print recently were "eco-catastrophe," "eco-activist" and "eco-tactics."

Can "eco-maniac" be far behind?

Ecology

is something you do'

By Cynthia Williams

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In a quiet middle-class Berkeley neighborhood there is a large brown three-story house. In front of the home is a cared-for lawn surrounded by blossoming flowers and beautiful shade trees.

The house is now home for the Ecology Action Educational Institute.

Founded last year by Cliff Humphrey, the institute educates and informs people about ecological problems of the environment.

Ten of the institute's full time volunteers initially lived at the house-institute. Five members are now a part of the 50-day "Survival Walk" to Los Angeles, while the other members have remained behind to assume the institute's permanent educational responsibilities.

More than talk

Those living and working at the center do more than just talk about air pollution. Instead of driving air pollutant vehicles, workers ride bicycles. When distance demands a vehicle a '49 Chevrolet pickup which runs on propane, a less pollutant fuel, is used.

Most of the volunteers are college graduates. Many of the male workers are registered with their draft boards as conscientious objectors.

One member of the institute is Stephen Ledyard, who was graduated from St. Mary's College last June and is a conscientious objector. Ledyard, 22, who majored in English literature, spends most of his time coordinating educational films for the institute. He supports himself by working two days a week at a Berkeley liquor store.

"I work at the institute because it's a chance for me to turn people on to ecology before it's too late," Ledyard said.

Mimi Akers, 23, a graduate of Smith College for Women, works at the institute every day. She takes the ecological principles home with her.

Fundamental principles

"I've tacked notices on telephone poles around my house which explaine some of Ecology Action's fundamental principles. People have called me asking whether the people on the block could get together and do something about garbage recycling and the prospect of starting a neighborhood garden," she said.

Mrs. Akers, who types and sends request information, talked about the people who

write to the institute.

"We've received a lot of requests from teachers who want to know something about Cliff Humphrey's book "What's Ecology" and his Ecology class pilot program at Campolinda High School."

According to Mrs. Akers, most of the requests come from high school students. She explained why she felt they showed such interest.

"High school kids don't feel as depressed about their chances of success; they're still optimistic about changing things and have the energy to go out and do something."

The institute's office is filled with stacks of printed literature, posters, three desks and typewriters.

In back of the house is the beginning stage of what volunteers hope will be a productive, organically grown garden.

Within the philosophy of Ecology Action, membership and leadership are determined by a simple formula — he who does, is. Ecology is more something you do than something you join.



Ecology Action draws upon the talents of many young people-all of whom believe that our Earth needs saving

Vomagic cures

By Alton Blakeslee AP Science Editor

The popular campaign to clean up the nation's polluted environment won't witness some magical quick

And that is worrying some experts in pollution control.

They are concerned that enthusiasm may fade when the drive to clean up the air, water and land runs into inevitable practical reali-

Disappointment and fading interest could deflate the pressure to do what is really required - continuing commitment and motivation to raise money, to pass and enforce the laws, to develop technology and to do all the work first to halt and then correct man-made insults to the environment. And then to keep improving and anti-pollution controls as population expands.

As one reality, take a river basin which is being polluted by raw sewage from a number of towns.

By popular demand, even law, all towns are asked to halt their pollution, right now. People along other rivers make similar demand.

The problems

But would there be enough engineers to make the essential surveys, then to plan and design the sewage treatment plants, or would there be enough skilled construction firms - given contracts for the lowest bids - to build all the plants for all the towns and cities at the same time?

The point is raised by Reinhold Thieme, a deputy assistant secretary of the Interior, not in terms of suggesting any slowdown, but merely to point out that it may take time to complete the clean-up of the entire river.

Another caution against expecting instant paradise comes from a distinguished leader in efforts to save man's environment. Rene Dubos of Rockefeller University in New York City. He says much basic knowledge is lacking concerning some actions to take.

While a river of dollars will be

needed to stop pollution, "even if we had limitless resources we could not formulate really effective control programs because we know so little about the origin, nature and effects of most air pollutants," Dubos wrote in Psychology Today.

Seventy per cent of the solid particles contaminating urban air have not been identified and "no one really knows at present which of the air pollutants are most dangerous and where priority should be placed in control measures.

Even greater ignorance exists concerning chemical pollutants in water supplies and about which ones may be harmful to health, he

But it is essential that as a society Americans commit themselves to solving problems of pollution "not because we are threatened with extinction but because, if we do not understand what the environment is doing to us, something worse than extinction will take place - a prog-

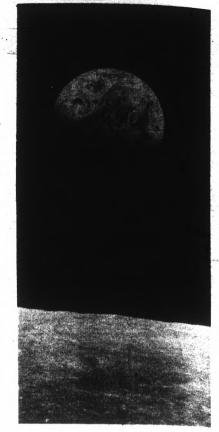
Charles Johnson, administrator, and John Hanlon, deputy administrator of the Environmental Health Service, Rockville, Md., stress the importance of "channeling our energies and concerns into the right priority of needs.

Air highest priority

While it is very important to protect wildlife and natural resources and to preserve recreational areas, they give the highest priority to cleaning up air and water to protect human health. And Johnson adds, in this respect: "What is good for man is good for animals, too.

The outlook is promising for truly effective control in a few years time of pollutants from automobile exhausts, but "the picture for control of pollutants from stationary sources is not so rosy," says Leighton Price of the Environmental Health Serv-

Major problems are sulfur oxides and solid particles of matter coming from power plants, factories, incinerators and burning of coal, but 'you just can't call on engineers



So alone in space-Will man destroy the spaceship that carrys him through the darkness

for this, who should foot that bill? The national bill for collecting, transporting and disposing of solid wastes - paper, plastics, cans, bot-

But will the fad last

ressive degradation of the quality of human life," Dubos declares.

No excuses

Specialists such as Thieme and Dubos are not suggesting any excuses for not going ahead immediately with a mammoth attack against pollution, but to give perspective that the struggle will take time and will involve more than the most obvious sources of pollution, such as sewage, chemicals pouring into the air and water, and noxious fumes from auto exhausts.

Standards of control will have to rise with population growth, Thieme points out.

Suppose, he explains, that a city is treating its sewage so that 95 per cent of what is discharged into a river or lake is safe enough not to harm the quality of the water - at this time. If the city's population doubles, or more, then the 5 per cent of contaminated material could, by sheer volume, become a damag-



now and say, 'Control my sulfur.' Some processes for doing this look good, but haven't been tested on a large scale yet. There's nothing on the shelf to do it with.

The dimensions of the problem of disposing of solid wastes are just becoming apparent to the public, says Richard Vaughan, director of the Bureau of Solid Waste Management of the Environmental Health Service.

What, for example, is to be done with seven million old automobiles abandoned every year? Only 10 per cent now are scrapped and the metal reused; the rest are eyesores, occupying more and more land.

Questions abound. Who should pay to have them transported for use as scrap - taxpayer, auto owner, auto maker? Should steel mills be required to use a certain percentage of scrap in making new steel - suppose their furnaces are not designed

tles, broken furniture, whatever is \$41/2 billion a year now, Vaughan

says.
"Collection methods, while archaic, aren't too bad, but disposal surely is bad. Mostly the stuff is thrown into dumps. Only about 6 per cent goes into sanitary landfills, and 8 to 10 per cent is incinerated, but only about one-quarter of the incinerators have adequate air pollution controls.'

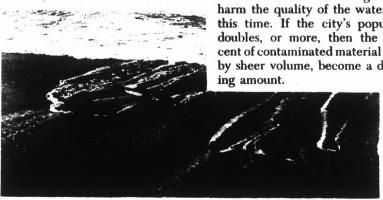
Research is needed to create more efficient incinerators and better land-fill techniques and devices,

"But if we put all our eggs into one technological basket, we are bound to lose. The amount of our solid waste is doubling every 10 years, and that's a conservative estimate.

'One reason is more people. The other is that what we discard, as individuals, is increasing at an even faster rate than doubling every 10

One great goal has to be to learn how to recycle more products, to use the same materials over and over again, and somehow to pay for doing this, Vaughan says.

The problem exists only with man's material things. Nature has always recycled all living things after they die.



As the tide comes in at S.F. Ocean Beach so does the trash-some of it from residents of the area.